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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.        | CONFIRMATION NO. |
|--|-------------|----------------------|----------------------------|------------------|
| 10/567,977   | 02/10/2006  | Toshiyuki Mishima    | 39700                      | 5467             |
| 52054 7590 04/09/2007<br>PEARNE & GORDON LLP<br>1801 EAST 9TH STREET<br>SUITE 1200<br>CLEVELAND, OH 44114-3108 |             |                      | EXAMINER<br>KERNS, KEVIN P |                  |
|  |             |                      | ART UNIT<br>1725           | PAPER NUMBER     |
| SHORTENED STATUTORY PERIOD OF RESPONSE   |             | MAIL DATE            | DELIVERY MODE              |                  |
| 3 MONTHS   |             | 04/09/2007           | PAPER                      |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/567,977

Applicant(s)

MISHIMA ET AL.

Examiner

Kevin P. Kerns

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 1 and 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/10/06.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. Figure 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In this instance, the 1st line includes the legal term "comprises", and it is suggested to replace "The invention comprises a" with "A".

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3. The disclosure is objected to because of the following informalities: in paragraph [0006], 6th line, replace "equimpent" with "equipment". In paragraph [0018], 3rd line, replace "10a" with "1a". Appropriate correction is required.

### ***Claim Objections***

4. Claims 1 and 2 are objected to because of the following informalities: in claim 1, last line, replace "the" with "a" before "base" to obtain proper antecedent basis. In claim 2, 2<sup>nd</sup> line, replace "the" with "a" before "forearm" to obtain proper antecedent basis. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to independent claim 1, the phrase "can be" is indefinite, as "can be" recites optional functions of being "controlled" (3rd line) and "rotated" (6th line). It is suggested to replace "can be" with "is" (in both instances) to more distinctly define this limitation in the claim.

Claim 1 recites the limitations "the rotation surface", "the same direction", and "the feeding direction". There is insufficient antecedent basis for these limitations in the claim.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicants' admitted prior art (AAPA – paragraphs [0002]-[0005] of specification; and "Prior Art" Figure 5) in view of JP 8-155881 (complete translation of this Japanese document is provided with this Office Action).

The applicants' admitted prior art (AAPA) discloses an arc welding robot (6-shaft joint arm type – see paragraph [0002] of AAPA) that is actuatable according to an operation pattern based on a previously set program or manually operated for welding, such that the welding robot further includes a robot main body 101 that is structurally operable to be controlled; a protectively covered wire feed device 105 that feeds a welding wire 103 and that is mounted on a mounting member 106 on a forearm portion 101d; a rotary pipe shaft 301 for holding the wire feed device 105 on the robot main body 101, such that the rotary pipe shaft 301 is arranged between the mounting member 106 and the forearm portion 101d, with the wire feed device 105 operable to be rotated on a rotation surface that extends substantially in the same direction as the feeding direction of the welding wire 103; and protectively covered connecting cables (for welding power supply and for wire feed device power supply) and a protectively covered gas hose 109 (for supply of welding assist gas) that are guided toward the wire feed device 105 (AAPA; paragraphs [0002]-[0005] of specification; and "Prior Art" Figure 5). The applicants' admitted prior art (AAPA) does not disclose that the connecting cable and/or the gas hose are guided through a hollow portion of the rotary pipe shaft and through the base portion of the robot main body.

However, JP 8-155881 discloses an industrial robot that prevents twist of tool hoses/cables, in which the industrial robot includes a (connecting) cable 10 guided through a hollow portion of a rotary pipe shaft (guide tube 22 with a turning part 2) and through the base portion of the robot main body of the industrial robot adjacent the motor 36 that controls operation of the robot arms and wrists, such that the connecting

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cable guided through the rotary pipe shaft and through the base portion of the robot main body is advantageous for preventing twisting and obstruction of tool hoses/cables adjacent a robot arm (abstract; paragraphs [0003]-[0008] of translation; and Figures 1-3).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the welding robot disclosed by the applicants' admitted prior art (AAPA), by using the connecting cable guided through the rotary pipe shaft and through the base portion of the robot main body, as taught by JP 8-155881, in order to prevent twisting and obstruction of tool hoses/cables adjacent a robot arm (JP 8-155881; abstract; and paragraphs [0003] and [0008] of translation).

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin P. Kerns  
Primary Examiner  
Art Unit 1725

*Kevin Kerns 4/2/07*

*KPK*

kpk

April 2, 2007